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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/016,042	11/16/2001	Wieslaw Brys	ZWC	5914
7590	02/13/2004		EXAMINER DEBERADINIS, ROBERT L	
Joseph Stecewycz P.O. Box 1309 Groton, MA 01450			ART UNIT 2836	PAPER NUMBER

DATE MAILED: 02/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

K.D.

Office Action Summary

Application No.

10/016,042

Applicant(s)

BRYN ET AL.

Examiner

Robert DeBeradinis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 November 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 5, 6, 10, 11, 12, 18, 20 are rejected under 35 U.S.C. 102(b) as being anticipated by NEMOTO 5,307,318.

Regarding claims 1, 5, 6, 11, 18.

NEMOTO discloses an apparatus for protection of an electronic circuit against anomalies in a supply power voltage, said apparatus comprising:

A reserve power source (12) connected to the supply power voltage, said reserve power source for providing a module voltage to the electronic circuit and further for maintaining said module voltage for a predetermined amount of time after an anomaly has occurred in the supplied power voltage;

A module control for maintaining selected data and control signals transmitted to the electronic circuit during occurrence of said anomaly in the supplied power voltage (column 5, lines 14-22); and

A differential comparator (29) connected to the supplied power voltage and to said reserve power source such that said differential comparator produces a comparator control signal upon occurrence of said anomaly in the supplied power voltage, said

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differential comparator further connected to said module control for providing said comparator control signal to said module control (figures 1, 2, signal 114).

Regarding claims 10, 12, 20.

NEMOTO discloses wherein said module control functions to hold an external reset signal (114) in an inactive state in response to said occurrence of said anomaly in the supplied power voltage.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7, 8, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over NEMOTO 5,307,318.

Regarding claim 7.

NEMOTO discloses the apparatus of claim 5 wherein said differential comparator further comprises a diode (13).

NEMOTO does not teach wherein the diode is a Schottky diode.

The Examiner takes official notice. The Schottky diode is a diode that has characteristics that give it the ability to switch faster than a standard diode.

It would have been obvious to one having ordinary skill in the art at the time of this invention to use a Schottky diode disposed between the supplied power voltage

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source and said voltage source. The motivation would have been to switch fast to respond to high frequency anomalies.

Regarding claims 8, 19

NEMOTO discloses the apparatus of claim 1.

NEMOTO does not disclose wherein said predetermined amount of time is about 5 to 500 micro seconds.

The Examiner takes official notice. The amount of time an energy storage device can supply energy is dependent on the storage capacity of the energy storage device and the load the energy storage device is supplying.

It would have been obvious to one having ordinary skill in the art at the time of this invention to provide an energy storage device such as a capacitor to supply the required amount of energy wherein said predetermined amount of time is about 5 to 500 micro seconds. The motivation would have been to compensate for anomalies that last for at least the predetermined amount of time.

Regarding claim 17.

NEMOTO discloses the apparatus of claim 11.

NEMOTO does not disclose the step of filtering at least one of the supplied power voltage and said module voltage.

The Examiner takes official notice. The step of filtering power supply lines to reduce noise on the power supply lines is well known in the art.

It would have been obvious to one having ordinary skill in the art at the time of this invention to modify the apparatus disclosed by NEMOTO to include the step of

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filtering the supplied power voltage and said module voltage. The motivation would be to reduce power supply noise.

Claims 2, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over NEMOTO 5,307,318 in view of DORON 6,426,571.

Regarding claims 2, 13.

NEMOTO discloses a battery for maintaining said module voltage in said differential comparator for a said predetermined amount of time after said anomaly has occurred in the supplied power voltage.

NEMOTO does not teach a capacitor for maintaining said module voltage in said differential comparator for a said predetermined amount of time after said anomaly has occurred in the supplied power voltage.

DORON discloses using a capacitor as a power source to provide temporary power until new batteries are inserted (column 1, lines 21-24).

It would have been obvious to one having ordinary skill in the art at the time of this invention to modify the teachings of NEMOTO wherein said differential comparator comprises a capacitor. The motivation would be to provide backup power to the module to compensate for temporary power disruption in the supplied power voltage, such as the replacement of the battery source.

Claims 3, 4, 14, 15, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over NEMOTO 5,307,318 in view of DORON 6,426,571 in further view of FARINE 5,862,046.

Regarding claims 3, 14, 16.

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NEMOTO in view of DORON disclose wherein said reserve power source comprises at least one of a battery and a capacitor for maintaining said module voltage.

NEMOTO in view of DORON do not teach wherein said reserve power source comprises an inductance.

FARINE discloses a power source wherein the power source comprises an inductance (L) to convert a voltage level to a desired voltage across the energy storage capacitor (C).

It would have been obvious to one having ordinary skill in the art at the time of this invention to modify the teachings of NEMOTO in view of DORON to include a converter wherein the converter included the inductance. The motivation would be to convert an existing voltage level to another voltage level to provide a voltage source with a different voltage level.

Regarding claims 4, 15.

NEMOTO in view of DORON in further view of FARINE disclose the apparatus of claim 3. NEMOTO discloses wherein said reserve power source further comprises a diode switch (figure 5, diode 62) adapted to prevent discharging of said module voltage if the supplied power voltage if the supplied power voltage decreases.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over NEMOTO 5,307,318 in view of FARINE 5,862,046.

Regarding claim 9.

NEMOTO discloses the apparatus of claim 1.

NEMOTO does not disclose a power conditioner disposed between the supplied power voltage source and said differential comparator.

FARINE discloses a converter to restore the energy to the power supply (column 3, lines 60-65).

It would have been obvious to one having ordinary skill in the art at the time of this invention to modify the apparatus of claim 1 to include a power conditioner disposed between the supplied power voltage source and said differential comparator. The motivation would have been to charge the energy storage capacitor source to a desired voltage level.

Any inquiry concerning this communication should be directed to Robert L. DeBeradinis whose number is (571 272-2049). The Examiner can normally be reached Monday-Friday from 8:30 am to 5:00 pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Brian Sircus, can be reached on (571 272-2800 EXT 36). The Fax phone number for this Group is (703) 872-9306.

RLD

FEBRUARY 6, 2004

